

Exhibit C

**UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF TEXAS
WACO DIVISION**

**TEXAS BLOCKCHAIN COUNCIL,
a nonprofit association;
RIOT PLATFORMS, INC.,**

Plaintiffs

v.

**DEPARTMENT OF ENERGY;
JENNIFER M. GRANHOLM, in her
official capacity as Secretary of Energy;
ENERGY INFORMATION
ADMINISTRATION; JOSEPH
DECAROLIS, in his official capacity as
Administrator of Energy Information
Administration; OFFICE OF
MANAGEMENT AND BUDGET;
SHALANDA YOUNG, in her official
capacity as Director of Office of
Management and Budget,**

Defendants.

Case No. 6:24-cv-99

VERIFIED AFFIDAVIT OF DR. JEREMY FISHER

I, Jeremy Fisher, hereby affirm as follows:

1. My name is Jeremy Fisher. I am employed by Sierra Club with a title of Principal Advisor, Climate and Energy. My business address is 2101 Webster Street, Suite 1300, Oakland, California 94612.

2. I have been employed as an energy systems expert for seventeen years, focused on the regulation, planning, and operation of electric utilities in nearly every state in the United

States. From 2007 through 2017, I worked as a consultant at Synapse Energy Economics, where I served federal regulators such as the U.S. Environmental Protection Agency (“EPA”), state utility regulators including the commissions of Michigan and Puerto Rico, consumer advocates, and other public interest organizations. I have substantial experience assessing the emissions impacts of load management. In 2014, EPA released a model I developed called the “Avoided Emissions and Generation Tool” or AVERT, which is used by state agencies to assess the emissions and health implications of demand and supply-side decisions.

3. At Sierra Club, I have continued to engage in electric utility regulatory matters, including in rate, fuel, and planning dockets in numerous states. In the course of my work, I have served as an expert witness in over thirty state public utility commission dockets across seventeen states. I have experience operating and reviewing the use of utility electric system models. I hold a doctorate in geological sciences from Brown University.

4. Of relevance to this docket, I am the co-author of a 2022 study¹ in which my team performed the first deep-dive on the energy consumption of proof of work cryptocurrencies (such as Bitcoin) mining operations in the United States. Our study examined numerous public records, including filings before the Securities and Exchange Commission (“SEC”), investor presentations, regulatory filings before state planning and utility commissions, and local media accounts to attempt to determine the magnitude and impacts of cryptocurrency mining load on electrical reliability and residential electricity rates in the United States since the large-scale relocation of mining activities from China beginning in 2021. The estimates we found assessed that in the 12 months preceding July 2022, Bitcoin mining consumed as much as all of the

¹ DeRoche, M., Fisher, J., Thorpe, N., and Wachspress, M., The Energy Bomb: How Proof-of-Work Cryptocurrency Mining Worsens the Climate Crisis and Harms Communities Now (Sept. 2022). Earthjustice and Sierra Club. Available online at https://earthjustice.org/wp-content/uploads/energy_bomb_bitcoin_white_paper_101322.pdf

electricity consumed in Maine, New Hampshire, Vermont, and Rhode Island put together, and was poised to consume more than that consumed by the state of Florida by 2026. A single mining facility, such as the Riot Platforms facility in Rockdale, can have energy usage equal to the output of the largest wind farms in the world, or a large gas-fired power plant.

5. Although there is wide agreement among electricity sector experts that cryptocurrency mining operations use immense quantities of electricity, our study also found that there is a significant knowledge gap as to how these mines operate and how they affect utilities' load estimates, transmission needs, and resource planning. The lack of transparency and consistent reporting hampers utility, grid operator, and regulators' ability to plan for new requirements, ensure grid stability and reliability, and protect other consumers from increased costs. The rapid pace of development and interconnection requests for these new facilities forces utilities and regulators to continuously play catch up, using sparse information. The Cambridge Bitcoin Electricity Consumption Index ("CBECI") estimates that Bitcoin's demand for electricity doubled between January 2023 and January 2024 alone.² Energy Information Administration (EIA) Form 862 is an appropriately timely and constrained mechanism to collect data necessary for utilities, regulators, and planners to ensure continued reliability as these large-scale loads enter the grid.

6. Cryptocurrency mining operations pose clearly documented and unique risks to the public, including residential customers. A June 2023 research paper from the National Bureau of Economic Research estimated that cryptocurrency mining operations in upstate New York increased residential bills by 6.6%, or \$88 per year, by requiring more expensive

² Cambridge Bitcoin Electricity Consumption Index. Accessed February 27, 2024. *Available online at* <https://ccaf.io/cbnsi/cbeci>

generators to operate more often.³ As a result, the rapid and projected growth of this industry renders the timely collection of information critical. The influx of novel concentrated large loads results in concerns for energy cost, capacity cost, and system reliability. The unprecedented pace of growth for cryptocurrency mining operations renders these issues of pressing national importance.

7. Specifically, with respect to reliability, grid operators and utilities must plan responsibly for growth in demand and moments of stress on the grid. Utilities and grid operators rely on accurate representations of load growth and new customer demands to ensure that infrastructure is in place to serve that demand. Vertically-integrated utilities, i.e. those that own generation, transmission, and distribution infrastructure, are required to build, at customer expense, sufficient infrastructure to serve anticipated new requirements. However, building new capacity to serve an explosive new need without transparency on existing or likely consumption can strain utilities and their customers.

8. Unlike other electricity customers, cryptocurrency mining is uniquely exposed to exogenous market price fluctuations, and uniquely transient. When cryptocurrency prices are high, mining operations can expand quickly, and modularly. In an annual filing, Riot explains that “as the proliferation of Bitcoin continues and the market price for Bitcoin increases, we expect additional miner operators to enter the market in response to an increased demand for Bitcoin which we anticipate to follow increased Bitcoin prices.”⁴ And as cryptocurrency prices fluctuated in 2022 and 2023, mining firms moved modular rigs to garner more favorable

³ Benetton, M., Compiani, G. and Morse, A., 2023. When cryptomining comes to town: High electricity-use spillovers to the local economy (No. w31312). National Bureau of Economic Research. *Available online at*

https://www.nber.org/system/files/working_papers/w31312/w31312.pdf

⁴ Riot. February 23, 2024. SEC Form 10-K. *Available online at*

<https://s3.amazonaws.com/sec.irpass.cc/2865/0001558370-24-001550.pdf>. At 4.

pricing.⁵ No other industry has the ability to scale both up and down as quickly, and move locations as rapidly.

9. These characteristics render it imperative for both utilities and regulators to understand the scale of growth, the risk of movement, and the breakeven cost of energy for the mining operations. These factors have profound implications for utility exposure and system reliability.

10. Fitch Ratings identifies that cryptocurrency mining operations pose a risk to utilities, explaining that the potentially transient nature of cryptocurrency mining operations creates a novel risk to existing customers. Fitch explains that to accommodate new mining load, “utilities may need to invest in new generation facilities, sign new long-term power purchase agreements or procure power via real-time market purchases in order to serve additional crypto mining load. The first two of these three options pose the greatest risk to the utility should the crypto mining operation shut down, as utilities could be left with stranded assets and costs that then must be recovered, typically by customers in the form of rate hikes, although the utility may utilize reserves to recover costs if there is little rate flexibility.”⁶

11. The North American Electric Reliability Corporation (“NERC”) identifies the rapid growth of cryptocurrency mining operations as an area of significant concern for reliability,

⁵ Jenkinson, Gareth. July 3, 2023. Hut 8 relocates 6,400 rigs, sees growth in AI and high-performance computing. <https://cointelegraph.com/news/hut8-relocates-6-400-rigs-sees-growth-in-ai-high-performance-computing>. See also Gkritsi, Eliza. April 5, 2022. *Marathon Digital to Move Mining Rigs From Coal-Powered Montana Site*. <https://www.coindesk.com/business/2022/04/05/marathon-to-relocate-mining-rigs-away-from-coal-powered-montana-site/>. See also Wright, Turner. August 2, 2022. Crypto miner Digihost plans to move rigs from New York to Alabama. <https://cointelegraph.com/news/crypto-miner-digihost-plans-to-move-rigs-from-new-york-to-alabama>

⁶ Fitch Ratings. January 24, 2022. “Crypto Mining Poses Challenges to Public Power Utilities” <https://www.fitchratings.com/research/us-public-finance/crypto-mining-poses-challenges-to-public-power-utilities-24-01-2022>

stating that “an emerging load forecasting issue is large loads associated with interruptible computer operations—principally crypto miners. Developing a forecast of these large flexible loads is a challenge due to different metering/telemetry configurations; specifically, whether they are standalone or co-located (i.e., behind the meter) at generation sites.”⁷ NERC went on to discuss that cryptocurrency mining operations in Texas’s grid “are requesting accelerated interconnection of their loads to the grid,” and that “such loads could reach up to 25,000 MW by 2026 based on current interconnection plans.”⁸ Notably, the Texas grid operator, ERCOT, now identifies more than 39,000 MW of potential demand for cryptocurrency by 2027,⁹ nearly half again as high as Texas’s record demand of 85,500 MW in August 2023.¹⁰

12. To adapt to these sudden increases in electrical load due to cryptocurrency mining operations, utilities and grid operators have attempted to restructure their tariffs. However, more and better information is required to ensure that these changes protect existing captive ratepayers from increased costs.

13. For example, in November 2021, Idaho Power filed an application for a new tariff (i.e. rates) with the Idaho Public Utilities Commission stating that it “has received prospective customer interest of approximately 1,950 megawatts (“MW”) in the last few months, and it is likely that if even a fraction of that customer interest ultimately interconnected to Idaho Power’s system, the additional load would exceed the Company’s ability to serve total system load during

⁷ NERC. Long Term Reliability Assessment. December 2022. *Available online at* https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/NERC_LTRA_2022.pdf. At 83.

⁸ *Ibid.* At 85.

⁹ ERCOT. January 25, 2024. Large Load Interconnection Status. *Available online at* <https://www.ercot.com/files/docs/2024/02/06/LLI-Queue-Status-Update-2024-1-25.pdf>

¹⁰ ERCOT. Last updated January 16, 2024. ERCOT Yearly Peak Demand Records. *Available online at* <https://www.ercot.com/static-assets/data/news/Content/a-peak-demand/all-time-records.htm>

the summer season without additional investment in capacity resources.”¹¹ In 2021, Idaho Power experienced a peak capacity of 3,751 MW¹², and expressed concern that the “speculative, power intensive” nature of cryptocurrency mining would result in the Company needing to “acquire new resources that may ultimately become stranded when the economics of cryptocurrencies change.”¹³

14. To address this risk, Idaho Power proposed a new tariff for “Speculative High-Density Load” customers, defined as those with a demand of 20 MW or more and “who have the ability to relocate quickly in response to short-term economic signals.” Under the tariff, approved June 2022, customers falling into this category are required to enter into individualized negotiations for service with the utility, which enables the utility to protect other customers.

15. In another example, in July 2022, Entergy Arkansas applied for permission from the Arkansas Public Service Commission to adopt a new “Large Power High-Load Density” rate structure to respond to numerous requests for interconnection from cryptomining facilities.¹⁴ An Entergy Arkansas officer testifying on behalf of the company’s request described crypto miners as able to “relocate easily and quickly if economic conditions change” and having actually done so “frequently and without notice.” He also testified that miners “are able to stop their operations with minimal notice and restart quickly without the adverse impacts that many customers experience if their power is interrupted even temporarily.”

¹¹ Idaho Public Utilities Commission. Case No. IPC-E-21-37. “Application of Idaho Power Company for AUTHORITY to Establish a New Schedule to Serve Speculative High-Density Load Customers.” November 4, 2021.

¹² *Ibid.* Paragraph 12.

¹³ *Ibid.* Paragraph 17

¹⁴ Arkansas Public Service Commission. Docket No. 22-032-TF. In the Matter of the Application of Entergy Arkansas, LLC for a Proposed Tariff Regarding Large Power High-Load Density (“Crypto Mining”). July 28, 2022. Direct Testimony of Caleb Bales.

16. This ability of cryptocurrency miners to interrupt their operations without second-order consequences such as shutting down a production line or losing a refrigerator full of food means that unlike most electricity customers, payments for voluntarily interrupting service under demand response or similar programs operate as a windfall rather than compensation for lost economic productivity.

17. As described by a different witness for Entergy Arkansas in the same proceeding, because cryptocurrency mining facilities are more likely to relocate or cease operations than most large-scale industrial users, building new generation to meet cryptocurrency load carries an increased risk of stranded assets. That is, building 100 MW of new generation to meet growing cryptocurrency demand presents a significantly higher risk that the mines will shut down or move, leaving the 100 MW of generation unused, relative to the risks associated with building new generation to meet broad-based demand growth or the needs of other large-scale industrial electricity users.

18. To address this risk, Entergy Arkansas proposed including interruptible provisions in its “Large Power High-Load Density” rate structure. These provisions are designed to ensure that this load must shut down during periods of peak demand such that the marginal additional load does not increase Entergy Arkansas’s capacity obligations as a member of MISO, the regional grid operator. Under the tariff as designed, Entergy Arkansas could serve new cryptocurrency mining operations without becoming obligated to build new generation resources specifically to meet this new load.

19. On November 4, 2022, the Arkansas Public Service Commission approved the proposed rate, finding “it is reasonable to impose additional safeguards to protect [Entergy Arkansas’s] customers.”

20. A better understanding of cryptocurrency mining operations and their interaction with the power grid is also important for a better understanding of how cryptocurrency is affecting grid operations and customer pricing during extreme weather. For example, I understand that on December 23 and 24, 2022, during severe winter weather due to Winter Storm Elliott, the Tennessee Valley Authority (“TVA”) directed local power companies to implement rolling blackouts to address a shortfall of generation capacity. Core Scientific, a Bitcoin mining company, contracts for at least 185 MW of electricity from TVA and one of its local power companies, Murphy Electric Power Board. To my knowledge, there is no publicly available information about whether Core Scientific curtailed its load during the December 2022 rolling blackouts and, if so, whether and how much they were compensated for doing so.

21. Ensuring reliability when new cryptocurrency mines enter the grid may also require significant expenditures on infrastructure. For example, in 2021, the Kentucky Public Service Commission authorized Big Rivers Electric Corporation to spend \$12.7 million to construct a 3.8-mile transmission line and two substations to serve a bitcoin mining operation in Paducah, KY. Big Rivers stated in its application for approval to construct the additional equipment that without new transmission infrastructure the cryptocurrency load “has the potential to result in reliability issues due to much heavier loadings on the existing facilities.” The costs of this construction will be included in Big Rivers Electric Corporation’s rate base and Open Access Transmission Tariff. *See Order, In the Matter of Electronic Application of Big Rivers Electric Corporation for a Certificate of Public Convenience and Necessity to Construct a 161kV Transmission Line in McCracken County, Kentucky*, Case No. 2021-00275 (January 14, 2022).¹⁵

¹⁵ Available at https://psc.ky.gov/order_vault/orders_2022/202100275_01142022_01.pdf.

22. State officials have raised concerns about these impacts. For example, in October 2022, the utility Kentucky Power sought approval of a ten-year economic development Special Contract with Ebon International LLC (“Ebon”), a Delaware corporation, to serve a cryptocurrency mining facility with an anticipated eventual load of 250 MW. This one facility’s demand would be equal to approximately 37% of Kentucky Power’s current total load. Daniel Cameron, Kentucky’s Attorney General, along with an organization representing Kentucky’s industrial utility customers, opposed the proposed Special Contract. *See* Post-Hearing Brief of the Attorney General and Kentucky Industrial Utility Customers, *In the Matter of Electronic Tariff Filing of Kentucky Power Company for Approval of a Special Contract with Ebon International, LLC*, Case No. 2022-0387 (August 8, 2023).¹⁶ According to the Attorney General’s brief in opposition, the proposed agreement between Kentucky Power and Ebon would have included a monthly credit for making 225 MW of the load interruptible. Ebon would receive that credit whether or not Kentucky Power actually ceased delivery during periods of high demand. Even if Ebon were called upon to curtail load, they could continue to use 22.5 MW (or 10%) without penalty. According to the Kentucky Attorney General, the estimated cost to other ratepayers of paying for Ebon’s service to be interruptible would be \$14.85 million per year. *See id.* at 5. Under the proposed contract, Kentucky Power could interrupt Ebon’s electrical service 20 times each year. To effectively use these interruption opportunities to avoid increased capacity obligations or transmission costs, Kentucky Power must accurately forecast the critical hours on which capacity obligations for subsequent years are based. Any mistakes would mean

¹⁶ Available at https://psc.ky.gov/pscecf/2022-00387/mkurtz%40bkllawfirm.com/08082023035800/KIUC-AG_Ebon_Brief_%28PUBLIC%29.pdf

significant increases in capacity obligations and tens of millions of dollars in additional costs for ratepayers.

23. The information in EIA Form 862 will enable other utilities to identify the presence of cryptocurrency operations within their service territories, assess the need for new rate structures for these operations, and design rate proposals that balance their obligation to provide electricity service with their obligation to protect ratepayers from the risks associated with the sudden influx of highly flexible loads tied to the volatile price of Bitcoin. Idaho Power and Entergy Arkansas provide examples of how utilities may be able to proactively adapt to this load, particularly with sufficient information on the energy consumption, mobility, and risk of cryptocurrency mining operations.

24. The location of cryptocurrency loads is also crucial information because the effects a choice of location can have on transmission across the grid as a whole. For example, in January 2024, Montana-Dakota Utilities Co. filed a complaint before the Federal Energy Regulatory Commission. The complaint alleged that Montana-Dakota its retail customers were being overcharged for congestion costs along a stretch of transmission line in North Dakota.¹⁷

25. The congestion charges prompting Montana-Dakota's complaint were implemented after a cryptocurrency mining facility began operating in a "load pocket," or an area where the typical demand exceeds the capacity of transmission into the area. As described in the complaint:

"In February 2023, the Atlas Power Data Center ("Atlas") in Williston, North Dakota (part of the NWND Load Pocket) was commissioned. At the time of commissioning, Atlas had a 90 MW load. By April 2023, Atlas's load was estimated at around 200 MW. Atlas is a customer of Mountrail Williams Electric Cooperative, which is a member of Basin Electric. The additional 200 MW of load from Atlas caused Basin Electric's gas fired generating units to run more frequently than in the past. This increased runtime led to the unavailability of these gas turbines due to the fact that the additional runtime

¹⁷ Montana-Dakota's complaint is available via [ferc.gov](https://www.ferc.gov) at Accession Number 20240123-5146.

depleted the available hours of the units under their air permits, and also because additional maintenance outages were required for the units. The cumulative impact of the additional load from Atlas, increased gas turbine unavailability, and periods of reduced output from local wind farms resulted in a pre-contingent overload of the Charlie Creek to Watford City Line in anticipation of the loss of the Basin Electric 345 kV line from Charlie Creek to Patent Gate (“Charlie Creek to Patent Gate Line”).”

26. The Montana-Dakota complaint illustrates the speed at which cryptocurrency demand can increase (110 MW within two months), the strain it puts on existing transmission as well as generation resources, and the impacts of the increased load on generator availability which in turn impacts the region as a whole.

27. The information in EIA Form 862 will enable grid operators to identify similar transmission constraints and to respond by modifying congestion charges, anticipate the type of rapid increases in load experienced by Basin Electric due to Atlas’s rapid expansion, or even negotiate with cryptocurrency mining operators regarding location to prevent similar load pockets from forming or becoming exacerbated.

EIA Form 862 is Not Burdensome

28. The complaint and request for relief cite as the substantive harm that “employees have collectively spent at least 40 hours attempting to respond to the initial Survey,” and that the 26-page survey is burdensome. *See* Dkt. 1 at 74; Dkt. 5 at 12. These claims are clearly overstated.

29. EIA Form 862, the Cryptocurrency Mining Facilities Report, is actually just one and a half pages, comprising just eight substantive questions, all of which are readily known to the respondents and are fundamental to their daily operations and internal reporting. The one and a half pages are repeated ten times in Schedules 2A through 2J for respondents with multiple high-consumption facilities.

30. The first page of the form is instruction. The second page, Schedule 1, comprises basic survey respondent contact information, which I believe is non-substantive. The second half of Schedule 1 comprises three questions, two of which are yes/no, and an identification of the number of facilities operated by the respondent. Schedule 2 asks respondents to identify the mailing address and geographic location of the facility, two basic and non-substantive questions. The remaining questions are substantive, but simple and intrinsic to the business of the respondents.

31. Two of the questions on Schedule 2 ask for the total facility energy consumption, and the electric service provider. This is readily available information, because it appears on the monthly energy bills of each respondent - i.e. the amount of energy billed and the electric company billing the respondent.

32. On the first page of Schedule 2, respondents are asked to estimate or calculate the amount of energy consumed for cryptocurrency mining operations. Because the processors used for cryptocurrency mining in proof-of-work (PoW) operations are dedicated processors, and the operation of these computers is fundamental to the predicted profitability of the facility, this value should either be readily calculated or estimated, as allowed by EIA.

33. On the second page of Schedule 2, respondents are asked to report energy suppliers, and the amount of energy purchased from each supplier. For the vast majority of respondents, there will be a single supplier, who in many cases will be the same entity as the electric service provider. Where a cryptocurrency respondent has a dedicated relationship with a different energy supplier, the power purchase agreement or behind-the-meter relationship is both fundamental to the cost and operation of the facility, and readily known by the respondent.

34. The last four questions of the survey ask for information that is also readily known to the respondents, and often shared widely with investors in public reports and presentations.

35. The first of these questions asks for the number of mining units used at the facility during the reporting period. This refers to the specialized processors, called “Application-Specific Integrated Circuit” (or “ASIC”) used in the facility. This numeric value is not only well known to the respondents, but often reported publicly to investors. For example, in Riot’s 2023 SEC Form 10-K, the organization reports that “our Bitcoin Mining business segment operated 112,944 miners with a total hash rate capacity of 12.4 exahash per second.”¹⁸ Mining operations regularly tout these statistics in investor-facing reports, such as Riot’s December 6, 2023 Corporate Presentation, in which the company discusses that its Corsicana Facility has ordered 99,840 miners, which will comprise 600 MW of capacity.¹⁹

36. The second of these questions asks for the age of the mining units, including the newest and average age. The vintage of the miners provides insight into the efficiency of the processors, and turnover of equipment. This information is also often shared with investors because it is fundamental to the perceived profitability of the respondents. For example, in December 2023, Riot shared its tranches of mining unit purchases from 2021 through 2025, including model numbers, quantity, and efficiency for each of its major facilities.²⁰

37. The third of these questions asks for the mining electric load, in megawatts (MW), for the facility. Again, this information is readily known to the respondents, and in fact is

¹⁸ See Riot Platforms. February 22, 2024. SEC Form 10-K filing for 2023. Available online at <https://s3.amazonaws.com/sec.irpass.cc/2865/0001558370-24-001550.htm> at 4.

¹⁹ See Riot Platforms. December 6, 2023. Riot Platforms Corporate Presentation. Available online at <https://d2ghdaxqb194v2.cloudfront.net/2865/192541.pdf> at 5.

²⁰ *Id* at 8-9.

often touted to investors as a point of pride. For example, on February 6, 2024, Bitdeer provided its January 2024 Operations Update, touting that it now had 214,000 mining units under management, comprising 895 MW of capacity.²¹ In its annual report, the company reports the specific capacity of each of its data centers.²²

38. The last substantive question asks for the aggregate hash rate of the facility. The hash rate, expressed in terahashes (one trillion hashes) or exahashes (one quintillion hashes) per second represents how many computations the facility is able to execute per second. This value is core to the production of proof-of-work cryptocurrency mining operations, because it represents the relative likelihood that a mining operation will be the entity that first successfully completes the brute-force equation that allows it to verify the blockchain and win a reward. Cryptocurrency mining operations advertise their hashrates publicly. Riot publishes this value on their landing page,²³ as do Bitdeer,²⁴ Marathon,²⁵ and Cleanspark.²⁶

39. In its investor-presentation explaining its bankruptcy reorganization plan, Core Scientific shows each of these fundamental pieces of information,²⁷ including the number of

²¹ Bitdeer. February 6, 2024. Bitdeer Announces January 2024 Operations Updates. Accessed February 26, 2024. <https://ir.bitdeer.com/news-releases/news-release-details/bitdeer-announces-january-2024-operations-updates>

²² Bitdeer. April 28, 2023. SEC Form 20-F. Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934. Available online at <https://ir.bitdeer.com/static-files/14b10bfd-47d9-437f-ad89-97156cf38aa4> at 68.

²³ Riot: Rockdale Facility. Accessed February 26, 2024. <https://www.riotplatforms.com/bitcoin-mining/rockdale/> (“Riot’s total self-mining hash rate capacity is expected to reach 20.1 EH/s by mid-2024.”)

²⁴ Bitdeer. Accessed February 26, 2024. <https://www.bitdeer.com/> (“21.2 EH/s: Managing has rate as of Sep 30, 2023”)

²⁵ Marathon Digital Holdings. Accessed February 26, 2024. <https://www.mara.com/> (“26.4 EH/s: Operational Hash Rate as of 01.31.2024”)

²⁶ Cleanspark. Accessed February 26, 2024. <https://www.cleanspark.com/> (“CleanSpark Exceeds 14 EH/s as Sandersville Expansion Comes Online”)

²⁷ Core Scientific. December 4, 2023. “Core Scientific, Inc. Emergence Overview”. Available online at https://s29.q4cdn.com/356375974/files/doc_presentations/2023/12/FINAL-Core-Scientific-Emergence-Pres-120423.pdf at 7-8

miners (145,000), the capacity of their facilities (724 MW), their overall hashrate (15.1 EH/s), and the vintage of their projected mining equipment (from 145,000 in October 2023 to 279,000 by end of year, 2027).

40. In summary, the answers to the eight substantive questions asked of respondents are well known to the respondents, and not burdensome. In comparison, EIA Form 860, the Annual Electric Generator Report, is a form used by 4,315 respondents, with information used by utilities, system operators, private businesses, energy buyers, energy traders, and regulators. The form poses over 220 multipart questions, and is allocated 16 hours by EIA, or just under 4.5 minutes per question. In contrast, EIA Form 862 is just eight single-part questions, or just under 4 minutes per question. In addition, the responses to the vast majority of the questions will be identical month-to-month, unless a facility changes electricity providers or acquires new mining equipment. In either case, this information would be readily available to the respondents.

The information requested in EIA Form 862 is inherently not proprietary

41. Much of the information requested in EIA Form 862 is shared with investors and is fundamental to the investment proposition of mining operations. EIA Form 862 only requires that this information be made available in a consistent form. For example, the vast majority of the substantive information in EIA Form 862 can be filled out for complainant Riot Blockchain from publicly disclosed information. Riot's Rockdale facility, previously owned by Whinstone,²⁸ is served by Oncor, and holds a 345 MW worth of power supply agreement through 2030 with TXU Energy Retail Company.²⁹ While not required by the form, that energy is provided in three

²⁸ The Rockdale facility was acquired by Riot when it acquired Whinstone on April 8, 2021. See Riot Blockchain. April 8, 2021. SEC Form 8-K. Riot to Acquire Whinstone, Creating a US-Based Industry Leader in Bitcoin Mining. *Available online at* <https://www.sec.gov/Archives/edgar/data/1167419/000107997321000261/ex99x1.htm>.

²⁹ Winstone US, Inc. March 31, 2020. SEC Form 8-K. *Available online at* <https://www.sec.gov/Archives/edgar/data/1167419/000107997321000745/ex99x2.htm> at 12.

contract blocks of 130 MW, 65 MW, and 150 MW, respectively.³⁰ The facility is 700 MW, housed 112,944 miners at the end of 2023,³¹ and has a 12.4 exahash per second hash rate.³²

The information requested in EIA Form 862 is necessary to understand the energy impacts of the mining operations

42. The scale of energy (MWh) and capacity (MW) consumption for each facility is critical to understand the growth and impact on critical services and planning. The service provider and energy supplier questions are necessary to understand which utility entities have speculative large loads, and provides transparency for regulators and other customer classes on potential impacts if cryptocurrency mining operations move or fail financially.

43. Information on the vintage, hashrate, and number of miners is critical for utilities and grid operators to understand the operational parameters of cryptocurrency mining operations. Cryptocurrency mining operations are fundamentally very simple. The marginal cost of mining is largely based on the cost of the energy supply and the efficiency of mining equipment. The revenue which can be generated by mining is based on the value of the cryptocurrency (e.g. the price of bitcoin). Cryptocurrency mining operations generally make a binary decision based on these two price points: if the revenue from mining exceeds the cost of mining, the operation proceeds at full capacity. If the cost exceeds the revenue, the facility curtails operations. This kind of price responsive behavior can be impactful on grid operations. For a utility or grid operator, the presence or absence of a massive load like a mining operation is relevant to daily decisions and long-term investments, and the ability to assess the breakeven price at which a

³⁰ Riot Platforms. February 22, 2024. SEC Form 10-K for Fiscal Year Ended December 31, 2023. Available online at <https://s3.amazonaws.com/sec.irpass.cc/2865/0001558370-24-001550.pdf> at F-27.

³¹ *Ibid.*

³² Riot Platforms. December 6, 2023. Riot Platforms Corporate Presentation. Available online at <https://d2ghdaxqb194v2.cloudfront.net/2865/192541.pdf>

cryptomining operation will curtail or operate is a crucial piece of information. In addition, for a statistical agency like EIA, the ability to accurately model price responsive cryptocurrency operations is crucial for system-wide forecasts.

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I declare, pursuant to 28 U.S.C. § 1746, under penalty of perjury that the foregoing is true and correct.

Executed in Oakland, California, on February 27, 2024.



Jeremy Fisher